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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANT(S): BEN-CHORIN, Moshe et al.

SERIAL NO.: 10/017,546 EXAMINER: Unknown

FILED: December 18, 2001 GROUP ART UNIT: 2633

FOR.: SPECTRALLY MATCHED PRINT PROOFER

ASSISTANT COMMISSIONER FOR PATENTS WASHINGTON, D.C. 20231

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Sir:

INFORMATION DISCLOSURE STATEMENT

Pursuant to 37 C.F.R. §§1.56, 1.97 and 1.98, this Information Disclosure Statement includes:

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The information herein cited is only in fulfillment of Applicant(s) duty of candor in disclosing all information brought to Applicant(s) attention. This submission does not represent that a search has been made or that no better art exists and does not constitute an admission that each or all of the listed documents are material or constitute "prior art". If it should be determined that any of the

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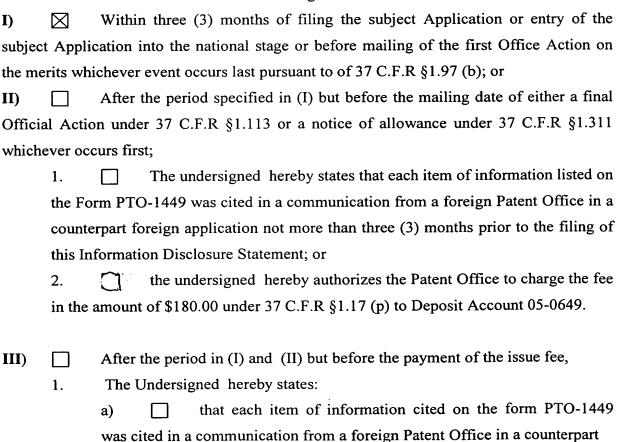
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listed documents do not constitute "prior art" under United States law, Applicant(s) reserve the right to present to the office the relevant facts and law regarding the appropriate status of such documents.

Applicant(s) further reserve(s) the right to take appropriate action to establish the patentability of the disclosed invention over the listed documents, should one or more of the documents be applied against the claims of the present application.

In accordance with MPEP Sections 609 and 707.05(b), it is requested that each and every document cited (including any cited in applicant's specification which is not repeated on the attached Form PTO-1449) be given thorough consideration and that it be cited of record in the prosecution history of the present application by initialing on Form PTO-1449. Such initialing is requested even if the Examiner does not consider it to be prior art for any reason, or even if the Examiner does not believe that the guidelines for citation have been fully complied with. This is requested so that each document becomes listed on the face of the patent issuing on the present application and is evidence that the Examiner has considered the document.

This Information Disclosure Statement is being filed:



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Page 3

foreign application not more than three (3) months prior to the filing of this Information Disclosure Statement; or

- 2. The Undersigned hereby authorizes the Patent Office to charge the Petition fee in the Amount of \$180.00 under 37 C.F.R §1.17 (p) to Deposit Account 05-0649.

Except for issue fees payable under 37 C.F.R. §1.18, the Commissioner is hereby authorized by this paper to charge any additional fees during the entire pendency of this application including fees due under 37 C.F.R. §§1.16 and 1.17 which may be required, including any required extension of time fees, or credit any overpayment to Deposit Account No. 05-0649.

Respectfully submitted,

Caleb Pollack V \ Attorney for Applicant(s) Registration No. 37,912

Dated: June 23, 2002

Eitan, Pearl, Latzer & Cohen-Zedek One Crystal Park, Suite 210 2011 Crystal Drive Arlington, VA 22202-3709

Tel: 703.486.0600 Fax: 703.486.0800

Signature

PTO/SB/08A (10-96)

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| STA | TEME | NT E | Y APPLIC | CANT | First Named Inventor | BEN-CHORIN, Moshe |
| | | | | | Group Art Unit | 2633 |
| (0 | use as ma | any she | ets as necess | ary) | Examiner Name | Unknown |
| Sheet | 1 | of | 3 | | Attorney Docket Number | P-4698-US |

| | | <u></u> _ | U. | S. PATENT DOCUMENTS | | |
|-----------------------|---------------|----------------------|-----------------------------------|---|--|--|
| Examiner Initials* | Cite No. 1 | U.S. Pater Number | Kind Code ² (if known) | Name of Patentee or Applicant of Cited Document | Date of Publication of Cited Document MM-DD-YYYY | Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear |
| | AA | 5,999,153 | | Lind et al | December 7, 1999 | |
| | AB | 4,390,893 | | Russell et al | June 28, 1983 | • |
| | AC | 4,843,381 | | Baron | June 27 1989 | |
| | AD | 4,843,573 | | Taylor et al | June 27, 1989 | |
| _ | AE | 4,892,391 | | Stewart et al | January 9, 1990 | OCIVED |
| | AF | 4,985,853 | | Taylor et al | January 15, 1991 | CEIVED |
| | AG | 5,455,600 | | Friedman et al | October 3, 1995 | JUN 2 7 2002 |
| | АН | 5,751,385 | | Heinze | May 12, 1998 | |
| | Al | 5,870,530 | | Balasubramanian | February 9, 1999 | nology Center 260 |
| | AJ | 5,892,891 | | Dalal et al | April 6, 1999 TECT | Mology certici Fa |
| | AK | 6,018,237 | | Havel | January 25, 2000 | |
| | AL | 6,198,512 | | Harris | March 6, 2001 | |
| | AM | 6,220,710 | | Raj et al | April 24, 2001 | |
| | AN | 6,246,396 | | Gibson et al | January 12, 2001 | |
| | AO | 6,259,430 | | Riddle et al | July 10, 2001 | |
| | AP | 6,262,710 | | Smith | July 17, 2001 | |
| | AQ | 6,147,720 | | Guerinot et al | November 14, 2000 | |
| | AR | 6,280,034 | | Brennesholtz | August 28, 2001 | |
| | AS | 6,231,190 | | Dewald | May 15, 2001 | |
| | AT | 5,233,385 | | Sampsell | August 3, 1993 | |

| | | | FORE | IGN PATENT DOCUME | NTS | | |
|-----------------------|---------------|----------------------------|--|--|--|--|-----|
| Examiner Initials* | Cite No. 1 | nPatent D Number⁴ (| Oocument Kind Code ⁵ (if known) | Name of Patentee or Applicant of Cited Document | Date of Publication of Cited Document MM-DD-YYYY | Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear | Т |
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| | | | | Group Art Unit | 2633 |
| (use | as mai | ny shee | ets as necessary) | Examiner Name | Unknown |
| Sheet | 2 | of | 3 | Attorney Docket Number | P-4698-US |

| | | | U.S | S. PATENT DOCUMENTS | | |
|-----------------------|---------------|-----------------------|--|---|--|--|
| Examiner Initials* | Cite No. 1 | U.S. Patent Number | Document Kind Code ² (if known) | Name of Patentee or Applicant of Cited Document | Date of Publication of Cited Document MM-DD-YYYY | Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear |
| | AU | 6,256,073 | | Pettitt | July 3, 2001 | |
| | AV | 6,324,006 | | Morgan | November 27, 2001 | |
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| A. TARATORI et al, Field-Sequential Shectic ECD with TFT Fixer Ampliner | , 3ID 01 Digest, FF. 40-31. |
| AX | — |
| JEFFREY A. SHIMIZU, "Scrolling Color LCOS for HDTV Rear Projection," S | SID 01 Digest, PP. 1072-1075. |
| FRANCISCO H. IMAI, Color Science; "Spectral reproduction from scene to | hordoony" Part |
| 1-Multi-spectral acquisition and spectral estimation using a Trichromatic Dig associated with absorption filters. | |
| WYBLE & BERNS, "A Critical Review of Spectral Models Applied to Binary number 1. | Color Printing", Volume 25 |
| ROSEN et al, "Spectral Reproduction from Scene to Hardcopy II: Image Posterior Science Laboratory, RIT- Proceedings of SPIE Vol.4300(2001). | rocessing Munsell Color |
| GUNTER WYSZECKI & W.S. STILES, Color Science; Concepts and Metho Formulae, 2d. Ed., 1982, PP.179-183. | ds, Quantitative Data and |
| POINTER, M.R., "The Gamut of Real Surface Colours", Color Research & A | Appl. 5(3):145-155, 1980. |
| AJITO et al, "Expanded Color Gamut Reproduced by Six-Primary Projection 2954 (2000) PP. 130-37. | Display", Proc. SPIE, Vol, |
| AJITO et al, "Multiprimary Color Display for Liquid Crystal Display Projectors Optical Eng.38(11) 1883-1888 (November 1999). | s Using Diffraction Granting", |
| AJITO et al, "Color Conversion Method for Multiprimary Display Using Matrix Vol. 9, No. 3 (2001), 191-197. | x Switching", Optical Review, |
| Vol. 9, No. 3 (2001), 191-197. | |

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